

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
28 October 2004 (28.10.2004)

PCT

(10) International Publication Number
WO 2004/091324 A3

(51) International Patent Classification⁷: B67D 5/62

(21) International Application Number:
PCT/US2004/011484

(22) International Filing Date: 13 April 2004 (13.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/462,700 15 April 2003 (15.04.2003) US

(71) Applicant and

(72) Inventor: HARRA, John [US/US]; 155 West 81st Street, Apartment 6L, New York, NY 10024 (US).

(74) Agent: INDYK, Eugene; Indyk & Rushford, 366 Rue Road, Monroe Township, NJ 08831 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,

PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

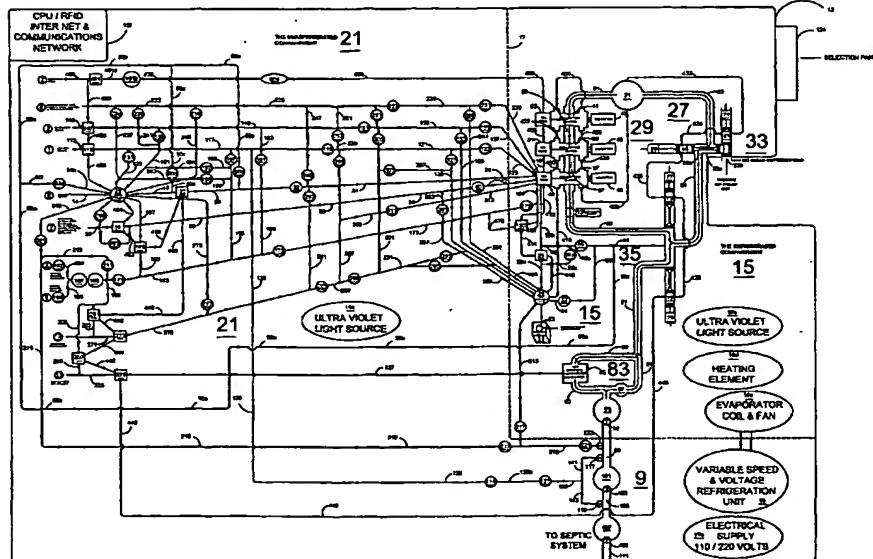
Published:

— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
17 February 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: APPARATUS FOR PROCESSING, STORING, AND DISPENSING SOFT SERVE FROZEN FOOD PRODUCT



(57) Abstract: Soft serve frozen food such as ice cream and frozen yogurt is pumped from a sanitary reservoir into a closed loop flow path that includes an emulsion barrel assembly that intimately mixes the ingredients in the food composition into a smooth consistency frozen food product. A dispensing head allows servings of soft serve food to be withdrawn from the closed loop. A clean-in-place system permits all critical parts of the machine that come in contact with food to be cleaned and sanitized without having to take the machine apart.

WO 2004/091324 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/11484

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B67D 5/62
 US CL : 222/146.6, 144.5, 145.1, 145.2, 146.1, 145.5, 145.6, 148; 99/460, 469; 62/71, 346, 354

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 222/146.6, 144.5, 145.1, 145.2, 146.1, 145.5, 145.6, 148; 99/460, 469; 62/71, 346, 354

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	US 6,698,228 B2 (KATEMAN et al) 02 March 2004 (02.03.2004), see Figures 1-5 and 6A-6C.	1-6,8-11
A	US 5,433,084 A (KAISER et al) 18 JULY 1995 (18.07.1995), see Figures 1-4.	1-11
A, E	US 2004/0118291 A1 (CARHUFF et al) 24 June 2004 (24.06.2004), see Figures 1-4.	1-11
A, P	US 2003/0071055 A1 (JOHNSON) 17 April 2003 (13.04.2003), see Figure 1.	1-11

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

23 August 2004 (23.08.2004)

Date of mailing of the international search report

11 JAN 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
 Commissioner for Patents
 P.O. Box 1450
 Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Michael Y Mar

Telephone No. (703)-308-0861

Sheila H. Vanech
 Paralegal Specialist
 Tech. Center 3700